

# Certification Test



Variable Frequency Drive Basics  
TRM902-AFD-DriveBasics (eLM.AFD.01.DriveBasics)

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## Taking the Certification Test

No demo unit is needed to take this test. Please record all answers on this answer sheet. Multiple-choice questions have **only one** correct answer, except where noted otherwise. Choose the best answer for each question.

A passing score is 90%.

## Returning the Certification Test

**Option 1:** Fax this page to **Yaskawa Technical Training Services** at (847) 887-7185.

**Option 2:** E-mail the answers and **all** contact info below to [training@yaskawa.com](mailto:training@yaskawa.com).

## Receiving Your Score

**You may review your answers only if a passing score is received.** When the test is taken during class, you will receive your score as soon as it can be graded. When taken as a CLEP test or pre-requisite enrollment test, contact Technical Training Services via email or phone to receive your score.

Answer Sheet:

1.    \_\_\_  \_\_\_
2.    \_\_\_  \_\_\_
3.    \_\_\_  \_\_\_
4.    \_\_\_  \_\_\_
5.    \_\_\_  \_\_\_

## **Contact Information:**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Company: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Fax number: \_\_\_\_\_

Supervisor's Name/ Title: \_\_\_\_\_

Name of Yaskawa Rep: \_\_\_\_\_

Test Date: \_\_\_\_\_

# Certification Test



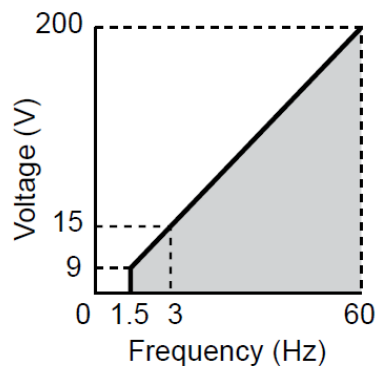
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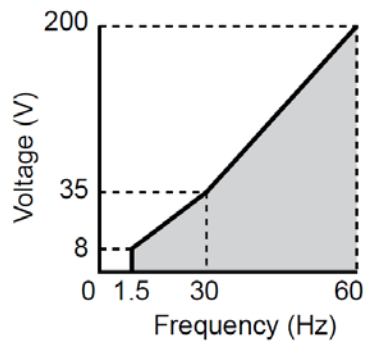
1. What does the acronym PWM stand for?

- A. Positive Wound Motor
- B. Pulse Width Modulation
- C. Pulse Wide Mitigation
- D. Pole Winding Motor

2. Which V/f Pattern would you choose for a variable torque load?



a.



b.

3. What does IGBT stand for?

- A. Insulated Gate Bipolar Transformer
- B. Integrated Gate Bidirectional Transistor
- C. Insulated Gate Bipolar Transistor
- D. Integrated Gate Bipolar Transistor

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4. Which control method offers the best performance?
  - A. V/F
  - B. V/F with PG
  - C. Open Loop Vector
  - D. Closed Loop Vector
  
5. What component of a Variable Frequency Drive is used to store energy?
  - A. Capacitor
  - B. Diode
  - C. MOVs
  - D. Soft Charge Circuit